

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number  
**WO 2005/081348 A3**

(51) International Patent Classification:

**H01M 8/04** (2006.01)

(21) International Application Number:

PCT/US2005/004516

(22) International Filing Date:

11 February 2005 (11.02.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

102004007104.7 13 February 2004 (13.02.2004) DE  
60/566,508 29 April 2004 (29.04.2004) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

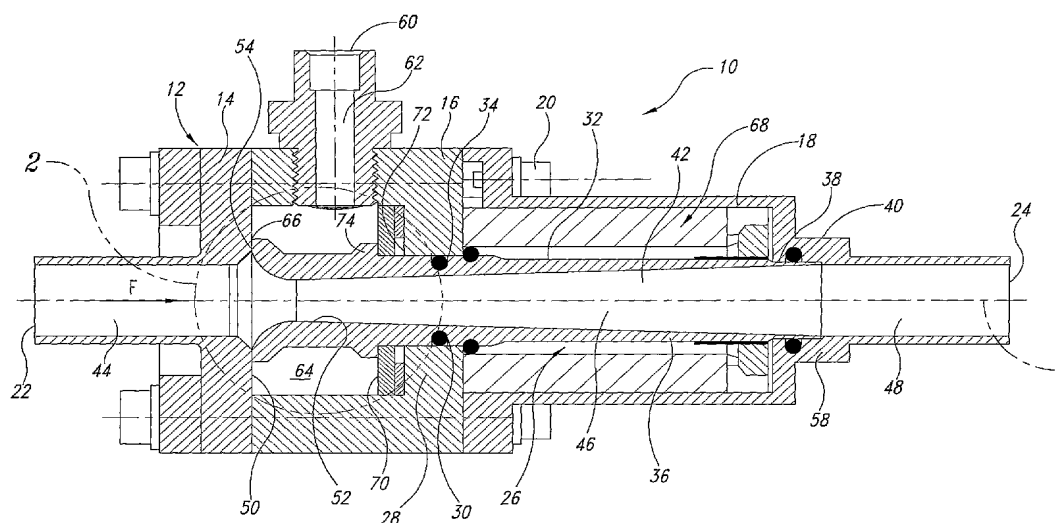
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: FUEL CELL SYSTEM WITH VARIABLE COANDA AMPLIFIERS FOR GAS RECIRCULATION AND SYSTEM PRESSURE REGULATION



(57) Abstract: A Coanda flow amplifier comprising a suction intake, an outlet, a fluid channel extending between the suction intake and the outlet, and a drive-flow inlet, which is fluidly connected to the fluid channel via a drive-flow discharge slit, whereby the flow cross section of the drive-flow discharge slit is variably adjustable. In a method to operate the Coanda flow amplifier, the variably adjustable flow cross section of the drive-flow discharge slit is chosen such that a pressure ratio between an output pressure of the drive flow when it leaves the drive-flow discharge slit, and an intake pressure of the drive flow when it enters the drive-flow discharge slit, does not exceed a critical pressure ratio. A fuel cell system comprises at least one fuel cell, a fluid source, a fluid line, and a Coanda flow amplifier arranged in the fluid line, whereby the Coanda flow amplifier is equipped with a drive-flow discharge slit with a variably adjustable flow cross section.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**(88) Date of publication of the international search report:**

8 June 2006